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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Hiroki Ito

Serial No.: 09/905,402

Filed : July 16, 2001

For : ANTENNA DEVICE AND PORTABLE RADIO COMMUNICATION DEVICE

Group A.U.: 2681

I hereby certify that this paper is being deposited this date with the U.S. Postal Service in first class mail addressed to:
Assistant Commissioner for Patents,
Washington, D.C. 20231

Jay H. Maioli
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INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

As a means of complying with the duty of disclosure set forth in 37 CFR §1.56 and in keeping with the guidelines of 37 CFR §1.98, Applicant hereby submits information thought to be relevant to the examination of the above-identified application. Also submitted herewith is a completed form PTO-1449.

This information came to light during the examination of a counterpart application in the European Patent Office in an Office Action dated August 23, 2002. Accordingly, the undersigned hereby certifies that the information submitted



herewith is being submitted within three months from the date of that Office Action.

To the best of the undersigned's knowledge, no Office Action has yet been received in the above-identified application.

A copy of the Search Report from the European Patent Office showing relevance of the attached reference is also submitted herewith.

International Patent Application No. 98 20577 (Martensson et al.) apparently relates to a radio telephone which increases antenna efficiency by reducing the loss of electrical energy and minimizing the interaction between the antenna and the user. As such, the apparatus has a current reducing means which is mounted to the housing of the apparatus, which during normal use, faces the user. The means has conductive as well as dielectric properties and is arranged to reduce or eliminate electric currents present in and/or on the apparatus housing, thereby increasing antenna efficiency and minimizing the interaction between the antenna and the user.

Yildirim, B.S. et al., "Analysis Of A Magnetically-Shielded Cellular Phone Antenna Using Finite-Difference Time-Domain Method", IEEE MTT-S International Microwave Symposium Digest, Vol. 2, pages 979-982 (June 17, 1996) apparently relates to studying the characteristics of an antenna used in a transceiver system. These characteristics are mainly the radiation pattern, input impedance, and the gain of the antenna. The above-identified reference proposes a new antenna suitable for cellular

phone applications in order to reduce hazardous electromagnetic radiation toward humans. The antenna is shielded with PEC and the shield is coated by a magnetic material. Utilization of this magnetic shield greatly reduces the electric field, thereby reducing the electromagnetic radiation directed towards the user.

Vaughan, R., "Switched Parasitic Elements For Antenna Diversity", IEEE Transactions On Antennas And Propagation, Vol. 47, No. 2, pages 399-405 (February 1999) apparently relates to switched parasitic elements which provide a useful implementation of antenna pattern diversity. The above-identified reference presents a class of simple antennas that produce diversity action and offer performance improvement over conventional single-port non-diversity antennas. The antenna system comprises an "active" element, which is permanently connected to the receiver and parasitic elements which have strong mutual coupling with the active element. The parasitic elements have a switchable terminating impedance. The different switch settings result in different far-field patterns, which in turn, invoke different fading in the channel of the active element. The advantage of the switched parasitic concept is that it is a relatively simple system which can give the adaptive antenna performance of many branch selections or switched diversity.

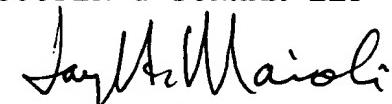
Lele, K.S. et al., "Slot Insert Shielding In Portable Radio Products", Motorola Technical Developments, Vol. 39, pages 56-63 (September 1999) apparently relates to a large shield with several slots cut into the top for a Slot Wall Insert. The

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invention allows for a far greater degree of flexibility in shielding options by designing one set of tooling up front and then inserting additional shielding only as needed. This arrangement translates to reduced manufacturing cycle time, as only necessary placements are made.

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. However, if a fee is required for this submission, the Commissioner is authorized to charge the requisite fee to our Deposit Account No. 03-3125.

Respectfully submitted,
COOPER & DUNHAM LLP



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JHM/DRM
Encl.